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Sedimentological review of upper triassic (Mulussa F formation) in Euphrates-Graben Syria

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Abstract

© Medwell Journals, 2016.Mulussa F formation is one of the important geological formations constituting the Mulussa group in Syria. The objective of this research is to review of sediments Mulussa F formation. Its deposits contain almost 50% of hydrocarbon potential through Euphrates Graben. Boreholes data permitted confining the formation between two Lithostratigraphic markers and enabled its division into three Lithostratigraphic members MUF3, MUF2, MUF1 (from bottom to top). Each member consists of a set of units, subunits and lithologic intervals. Petrology studying provides a precise petrological description of various formation members and their Digenetic. Results show that the members of the structure are composed of continental detrital sediments made up of clay stones (Kaolinite/Illite) and Shale/Dolomitic clay stone, covered by intervals of quartz sandstones, clay sandstones and silt sandstones. The carbonate sediments are absent from the formation unless it's base which consists of Dolomitic clay stone and its top which are close to carbonate composition. This sediment of those members spread out as repeated or harmonic alternations whose faces gradients reflect transgression and regression sequences. Due to the historical value of Mulussa F formation, it is vital to investigate its sediments status. The study of these sediments leads to represent narrow barriers near river mouth with meandering channels and limited coastal deposits.

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Keywords

Chemostratigraphy, Euphrates Graben, Mulussa F, Sedimentology, Stratigraphy, Triassic